

REMARKS

35 U.S.C. § 112

Claims 2, 5, 6, 8, 10 and 13-15 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claims 2, 5, 6, 8, 10 and 13-15 have been amended to recite "integrally formed" instead of "integral". While the claims have been amended, it is believed that one skilled in the art would have readily understood that the "retainer having the integral bumper-contact surface" in the dependent claims is the same retainer "having an integrally formed bumper-contact surface" as recited in the independent claims.

Regarding claim 10, claim 10 recites that the bumper contact surface is radially inward of the secured ends of the elastomeric sleeve. This is not recited, nor inherent in claim 1. The language "relative to a radial center of the airspring" is not redefining the location of the bumper contact but assisting in describing the relative locations of the bumper contact surface and the sleeve ends.

Claim 14 has been amended to correct the dependency so it is not a duplicate of claim 6.

35 U.S.C. § 102(b)

Claims 1-7 and 10-15 have been rejected under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Ecktmann et al (USP 5,201,500). This rejection is respectfully traversed for the following reasons.

Ecktmann has been applied under 102(b). To qualify as a reference under 102(b) Ecktmann must disclose each and every element of the claimed invention. The bumper contact surface of Ecktmann is *not* integrally formed with the retainer. Not one person of ordinary skill in the art would read Ecktmann to disclose such a construction.

The lack of such a construction is evidenced by the 103 argument presented. An alternative 102/103 argument is applicable if there are questions of interpretation or inherency in either the claim or the prior art. Herein, there are no such questions. The claims recite integrally formed; the bumper of Ecktmann is not so formed.

The basis of the §103 argument is that it is known to make integral several items that were previously separate, i.e., an obvious design choice, to save cost and installation time. Where there are certainly instances where it would be an obvious design choice to combine

elements, one must also look at the exact elements and what the prior art teaches regarding these elements and why the prior art teaches forming the parts separately.

The entire goal of Ecktman is to replace the former elastomeric bumper with a lighter weight, easier to install bumper. Thus Ecktman was already looking to improve on the prior art bumpers. The bumper 20 is mounted on the clamping plate 12; the clamping plate 12 then being secured to the piston 3.

Ecktman does appreciate the simplification of forming parts integrally, see col. 4, lines 22-27. Had forming the bumper and plate integrally been obvious and a matter of mere design choice, it would have been appreciated by Ecktman.

In the air spring art, the bumpers are used to vary the rebound of the spring. The taller the height of the bumper, the more force is experienced by the bumper and the stroke length is reduced. The smaller the height of the bumper, the greater the stroke length and some of the energy is dissipated by the air sleeve and the motion of the spring.

The use of an independent, i.e., non-integral bumper enables the engineer to tune an airspring for a particular application and performance characteristic. This is even evidenced by the present invention, disclosing multiple heights for the bumper contact surface. This is even appreciated by Ecktman's later patent U.S. 6,070,861. The present invention of an integrally formed bumper and retainer is, in fact, counter-initiative to the industry.

It is respectfully asserted that in many arts, forming integral components would be obvious, this is not true of every technology, and for the present airspring, it would not be obvious to one in the art to form the retainer 12 and bumper 20 of Ecktman as a single article. Furthermore, Ecktman does not even indicate that the elements 12 and 20 are formed of the same material.

Regarding claims 5, 6, 13 and 14, there appears to be a misunderstanding of the claim language. Claims 5 and 13 recite that the first axially outer surface and the second axially outer surface extend into the airspring sleeve. Ribs 29 and 30, as cited in the Office Action, are not axially outer surfaces, but are circular ribs, though axially extending. For the airspring of Ecktman, and the present invention, the axial direction is up and down with respect to the drawings. For Ecktman the axially outermost surface is the top of the bumper and the next axially outer surface is actually the top of the cap 31. The second axially outer surface of Ecktman does not extend "into" the sleeve as recited.

Ecktman et al. fails to anticipate the invention as recited in claims, it is respectfully requested that this rejection be withdrawn.

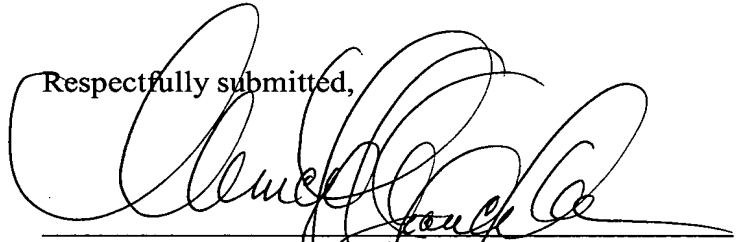
35 U.S.C. § 103

Claims 8 and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ecktmann et al. in view of Koschinat et al. (USP 4,890,823). This rejection is respectfully traversed for the following reasons.

This rejection is based on the 102/103 rejection of Ecktmann. As argued above, one skilled in the art would not have found it obvious to form the bumper 20 and plate 12 as a single item.

In light of this amendment, all of the claims now pending in the subject patent application are allowable. Thus, the Examiner is respectfully requested to allow all pending claims.

Respectfully submitted,



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